

California Electronic Greenhouse Gas Reporting Tool


Reporting for Subpart Y

Petroleum Refineries

March 13, 2012

Presentation Slides Available Here:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

California Air Resources Board 1



This training is provided by ARB solely for informational purposes. It does not provide legal advice and does not have legally binding effect. This training does not supplant, replace or amend any of the legal requirements in the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, sections 95100-95157. Conversely, any omission or truncation of regulatory requirements found within this training does not relieve any entity or person of their legal obligations to fully comply with all requirements of the regulation.


California Air Resources Board 2



Training Resources

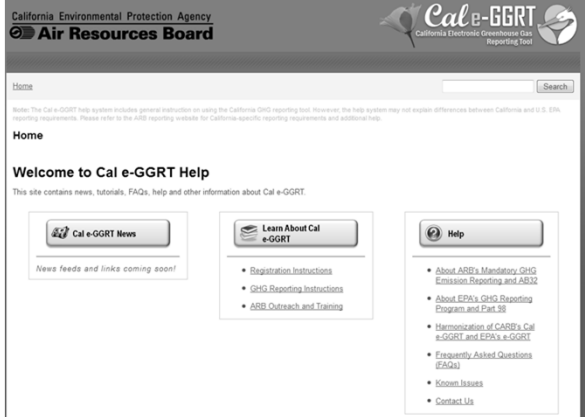
- Reporting Guidance: Applicability, Metering
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Tool Training: Registration, Subparts
<http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
- Cal e-GGRT Main Help Page
<http://www.ccdsupport.com/confluence/display/calhelp/Home>
- U.S. EPA Detailed Sector Training Slides
<http://www.epa.gov/climatechange/emissions/training.html>
 (use as a supplement to ARB summary slides)

California Air Resources Board 3



Cal e-GGRT Help

<http://www.ccdsupport.com/confluence/display/calhelp/Home>



California Environmental Protection Agency
 Air Resources Board

Home

Welcome to Cal e-GGRT Help

This site contains news, tutorials, FAQs, help and other information about Cal e-GGRT.

Cal e-GGRT News
 News feeds and links coming soon!

Learn About Cal e-GGRT

- Registration Instructions
- GHG Reporting Instructions
- ARB Outreach and Training

Help

- About ARB's Mandatory GHG Emission Reporting and ASR2
- About EPA's GHG Reporting Programs and Part 98
- Harmonization of CARB's Cal e-GGRT and EPA's e-GGRT
- Frequently Asked Questions (FAQs)
- Screen Issues
- Contact Us

FAQs - Glossary - Contact Us - ARB GHG Reporting 4

Subpart Y - Outline

- Define your Subpart Y reporting requirements.
- Register your facility in Cal e-GGRT.
- Calculate emissions using the Cal e-GGRT functionality.
- Report emissions using Cal e-GGRT.

California Air Resources Board

5

Subpart Y -Regulatory Basis for Reporting

Date	Action
10/30/2009	US EPA Final Rule Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN, OO, and PP. Preamble and Rule (PDF) (261 pp, 2.6MB)
12/17/2010	US EPA Final Rule Corrects technical and editorial errors, and clarifies rule provisions for subparts C, D, E, F, G, H, K, N, O, P, Q, R, S, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, NN, OO and PP. Preamble and Rule (PDF) (81 pp, 667K) More information
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm

California Air Resources Board

6

What is Cal e-GGRT Used For?

- Cal e-GGRT is the system used to report all data required by the GHG mandatory reporting regulation.
- The tool contains modules for each sector required to report.
 - Also includes modules for Fee Regulation and SF₆
- Multiple users can be associated with a single facility or entity.
- Verifiers can be associated with facilities and entities in the tool for data review purposes.

California Air Resources Board

7

Overview of Cal e-GGRT Operation

- Registration – old and new reporters.
- Input required facility information.
- Adding subparts for reporting.
- Entering emissions data.
- Data reporting mechanisms.
 - Direct interface, XML spreadsheet uploads, spreadsheet attachments (varies by sector)
- Validation messages.

California Air Resources Board

8

Registration

- Need an ARB Registration Code to register in Cal e-GGRT
 - New reporters must request an ARB Registration Code prior to registration. Send an e-mail request to

ghgreport@arb.ca.gov

March 1: Registration and System Overview

A brief overview of registering in the new Cal e-GGRT system and overall system operation.

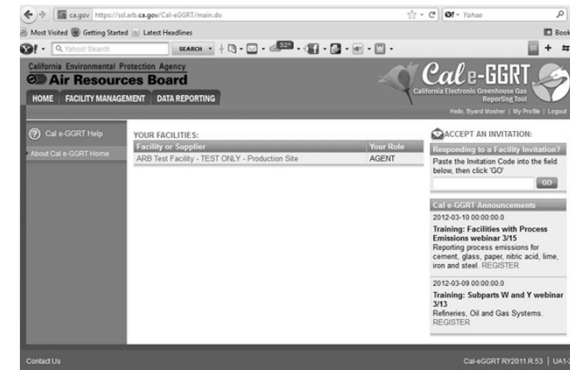
Slides: [1-per-page \(color\)](#) [4-per-page \(B&W\)](#)
[Detailed Registration Instructions](#)

California Air Resources Board

9

Cal e-GGRT Tabs

Home tab

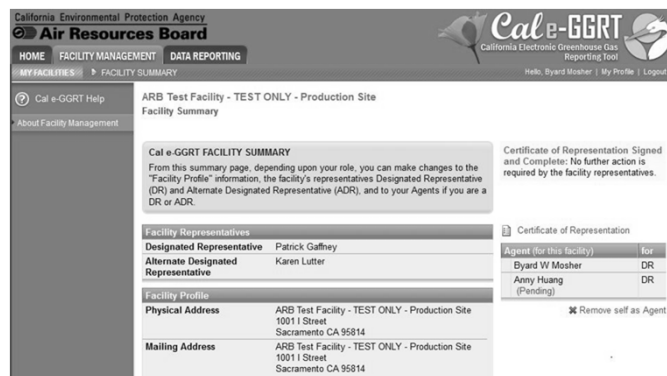


California Air Resources Board

10

Cal e-GGRT Tabs

Facility Management Tab

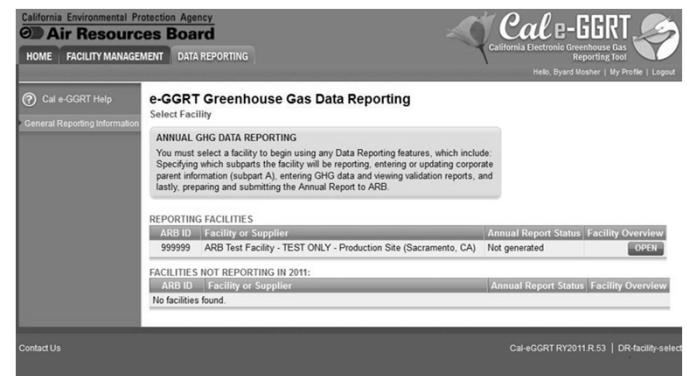


California Air Resources Board

11

Cal e-GGRT Tabs

Data Reporting Tab



California Air Resources Board

12

Reporting - Overview

- Configure your Facility-Level Emission Summary – add units as required.
- Report emissions for each applicable source.
 - 1) download applicable excel spreadsheet
 - 2) enter data
 - 3) save as XML
 - 4) upload xml file to Cal e-GGRT

California Air Resources Board

13

Reporting Emissions

California Environmental Protection Agency
Air Resources Board
 Cal e-GGRT
 California Electronic Greenhouse Gas Reporting Tool

HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help

How to add a subpart and report data

General reporting information

How to submit an annual report

ARB Test Facility - TEST ONLY - Production Site (2011)
Cal e-GGRT Greenhouse Gas Data Reporting
 Select Facility » Facility or Supplier Overview

FACILITY OR SUPPLIER OVERVIEW
 This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.
 After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

290,131
 CO₂ equivalent emissions (excluding biogenic) from subparts C - HH (metric tons)

63,333
 Biogenic CO₂ emissions from subparts C - HH (metric tons)

0
 CO₂ equivalent quantity from supplier categories (metric tons)

VIEW GWD DETAILS

REPORT DATA

California Air Resources Board

14

Reporting Emissions

REPORT DATA

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion	View Messages	OPEN
Section 95114 (Subpart P)—Hydrogen Production	View Messages	OPEN
Sections 95150-95157 (Subpart W)—Oil and Natural Gas Systems	View Messages	OPEN
Section 95113 (Subpart Y)—Petroleum Refineries	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO ₂)	View Messages	OPEN

ADD or REMOVE Subparts

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
Patrick Equaton C-2b (HHV) Calculation Spreadsheet.xls	C	Patrick Gaffney	March 9, 2012

SUBMIT ANNUAL REPORT

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date

California Air Resources Board

15

Reporting: Adding Subparts

ARB Test Facility - TEST ONLY - Production Site (2011)
e-GGRT Greenhouse Gas Data Reporting
 Select Facility » Facility Overview » Section (Subpart) Selection

SECTION (SUBPART) SELECTION
 Please check all relevant ARB rule sections for this facility or supplier. Further information can be found in the e-GGRT Help links to the left.

EPA SUBPARTS D - AA

☒ 95112 (Subpart D)—Acid Rain Program EGU
 Description (SHOW) (HIDE)

☐ 95110 (Subpart H)—Cement Production
 Description (SHOW) (HIDE)

☐ 95116 (Subpart N)—Glass Production
 Description (SHOW) (HIDE)

☐ 95114 (Subpart P)—Hydrogen Production
 Description (SHOW) (HIDE)

☐ 95120 (Subpart Q)—Iron and Steel Production
 Description (SHOW) (HIDE)

GENERAL STATIONARY FUEL COMBUSTION

☒ 95115, 95112 (Subpart C)—Stationary Fuel Combustion
 Description (SHOW) (HIDE)

SUPPLIER CATEGORIES

☐ 95121 (Subpart MM)—Suppliers of Petroleum Products
 Description (SHOW) (HIDE)

☐ 95122 (Subpart NN)—Suppliers of Natural Gas and Natural Gas Liquids
 Description (SHOW) (HIDE)

☐ 95123 (Subpart PP)—Suppliers of Carbon Dioxide
 Description (SHOW) (HIDE)

AR 12 CYST OF IMPERMENTATION EFF. REGULATION

California Air Resources Board

16

Reporting: Adding Subparts

☐ 95114 (Subpart P)—Hydrogen Production
Description (SHOW | HIDE)

☐ 95120 (Subpart Q)—Iron and Steel Production
Description (SHOW | HIDE)

☐ 95117 (Subpart S)—Lime Manufacturing
Description (SHOW | HIDE)

☐ 95118 (Subpart V)—Nitric Acid Production
Description (SHOW | HIDE)

☒ 95150-95157 (Subpart W)—Oil and Natural Gas Systems
Description (SHOW | HIDE)

☒ 95113 (Subpart Y)—Petroleum Refineries
Description (SHOW | HIDE)

☐ 95119 (Subpart AA)—Pulp and Paper Manufacturing
Description (SHOW | HIDE)

and Natural Gas Liquids
Description (SHOW | HIDE)

☐ 95123 (Subpart PP)—Suppliers of Carbon Dioxide
Description (SHOW | HIDE)

AB 32 COST OF IMPLEMENTATION FEE REGULATION

☐ 95201-95207—AB 32 Cost of Implementation Fee Regulation
Description (SHOW | HIDE)

SF6 GAS INSULATED SWITCHGEAR

☐ 95350-95359—SF6 Gas Insulated Switchgear
Description (SHOW | HIDE)

ELECTRIC POWER ENTITIES

95111—Electric Power Entities
Not currently available for selection
Description (SHOW | HIDE)

CANCEL SAVE

California Air Resources Board 17

Data Reporting

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help

General Reporting Information

e-GGRT Greenhouse Gas Data Reporting
Select Facility

ANNUAL GHG DATA REPORTING
You must select a facility to begin using any Data Reporting features, which include Specifying which subparts the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to ARB.

REPORTING FACILITIES

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
999999	ARB Test Facility - TEST ONLY - Production Site (Sacramento, CA)	Not generated	OPEN

FACILITIES NOT REPORTING IN 2011:

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
No facilities found.			

Contact Us Cal e-GGRT RY2011 R.53 | DR-facility-select

California Air Resources Board 18

Data Reporting

Open Subpart Y

REPORT DATA

2011 Reporting Source Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion	View Messages	OPEN
Section 95112 (Subpart D)—Acid Rain Program EGU	View Messages	OPEN
Sections 95150-95157 (Subpart W)—Oil and Natural Gas Systems	View Messages	OPEN
Section 95113 (Subpart Y)—Petroleum Refineries	View Messages	OPEN

ADD or REMOVE Subparts

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
No subpart attachments			

SUBMIT ANNUAL REPORT
If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date

VERIFICATION BODY

2011 Reporting Source Category

Validation Messages?

Subpart Reporting

ADD or REMOVE Subparts

SUBPART ATTACHMENTS

SUBMIT ANNUAL REPORT

VERIFICATION BODY

California Air Resources Board 19

Reporting Emissions & Product Data

Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help

Using Cal e-GGRT for Subpart Y reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview

OVERVIEW OF SUBPART Y REPORTING REQUIREMENTS
Subpart Y requires affected facilities to report greenhouse gas (GHG) emissions from flares, catalytic cracking units, traditional fluid coking units, fluid coking units with flexicoking design, delayed coking units, catalytic reforming units, sulfur recovery units, coke calcining units, asphalt blowing, equipment leaks, storage tanks, uncontrolled blowdown systems, loading operations, process vents, and non-merchant hydrogen plants. For additional information about Subpart Y reporting, please use the Cal e-GGRT Help link(s) provided.

FACILITY-LEVEL EMISSIONS SUMMARY

	CO ₂ (metric tons)	CH ₄ (metric tons)	Status ¹	
Uncontrolled Blowdown Systems	N/A		Incomplete	OPEN
Equipment Leaks	N/A		Incomplete	OPEN
Loading Operations	N/A		Incomplete	OPEN
Storage Tanks	N/A		Incomplete	OPEN
Sour Gas Sent Off-Site		N/A	Incomplete	OPEN
Delayed Coking	N/A		Incomplete	OPEN

California Air Resources Board 20

Reporting Emissions & Product Data (adding units)

DELATED COKING UNITS

Unit Name/Identifier	Status ¹	Delete
Coking Unit	Complete	OPEN
✚ ADD a Delayed Coking Unit		

ASPHALT BLOWING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	Status ¹	Delete
None entered				
✚ ADD an Asphalt Blowing Unit				

COKE CALCINING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status ¹	Delete
None entered					
✚ ADD a Coke Calcining Unit					

CATALYTIC CRACKING UNITS, TRADITIONAL FLUID COKING UNITS, FLUID COKING UNITS WITH FLEXCOKING DESIGN, AND CATALYTIC REFORMING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status ¹	Delete
None entered					
✚ ADD a Catalytic Cracking or Coking Unit					

FLARES UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status ¹	Delete
None entered					
✚ ADD a Flare					

California Air Resources Board

21

Reporting Additional Data (product and Solomon index data)

FLARES UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status ¹	Delete
None entered					
✚ ADD a Flare					

PROCESS VENTS UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status ¹	Delete
None entered					
✚ ADD a Process Vent					

SULFUR RECOVERY UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	Status ¹	Delete
None entered			
✚ ADD a Sulfur Recovery Plant			

ADDITIONAL PRODUCT DATA AND ENERGY EFFICIENCY INDEX (EEI)

Use the Additional Product Data and Solomon EEI spreadsheet to record the production amounts for each product produced by this facility. Upload the completed XML exported from the spreadsheet.

✚ Additional Product Data and Solomon EEI Spreadsheet

Browse... **UPLOAD**

California Air Resources Board

22

Reporting Emission Data (facility level emissions)

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help
Using Cal e-GGRT for Subpart Y reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview » Uncontrolled Blowdown Systems » Choose Calculation Method

UNCONTROLLED BLOWDOWN SYSTEMS CALCULATION METHOD

Please indicate a methane (CH₄) calculation method for uncontrolled blowdown systems, if any. Blowdown systems where the uncondensed gas stream is routed to a flare or similar control device are considered to be controlled. For additional information about the data collected on this page, please use the Cal e-GGRT Help link(s) provided.

Select the appropriate option regarding this facility's uncontrolled blowdown systems:

☐ Use process vents method to estimate CH₄ emissions.
☒ Use equation Y-20 to estimate CH₄ emissions.
☐ This facility does not have any uncontrolled blowdown systems.

* denotes a required field

BACK CANCEL NEXT

Contact Us Cal e-GGRT RY2011.R.53 | Y20-0

California Air Resources Board

23

Reporting Emission Data (blowdown systems)

Cal e-GGRT Help
Using Cal e-GGRT for Subpart Y reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview » Uncontrolled Blowdown Systems » Eq. Y-20

GHG DATA AND ASSOCIATED INFORMATION

Use this page to enter the GHG data required by Subpart Y. For additional information about the data collected on this page, please use the Cal e-GGRT Help link(s) provided.

EQUATION Y-20 SUMMARY AND RESULT

$$CH_4 = (C_{ref} \times EF_{ED} \times \frac{16}{MVC} \times 0.001)$$

Hover over an element in the equation above to reveal a definition of that element.

Use the equation Y-20 Calculation Spreadsheet to calculate the result. Upload the completed XML, exported from the spreadsheet.

✚ Equation Y-20 Calculation Spreadsheet

Browse... **UPLOAD**

Uploaded File Name	Attached By	Date	Delete
No files found.			



Basis for the methane emission factor value: Select

BACK CANCEL SAVE

California Air Resources Board

24

Reporting Emissions Data

Home » GHG Reporting Instructions » Reporting Form Instructions

Notes: The Cal e-GGRT help system includes general instructions on using the California GHG reporting tool. However, the help system may not explain differences between California and U.S. EPA reporting requirements. Please refer to the A22 reporting website for California-specific reporting requirements and additional help.

Reporting Form Instructions

This help page provides guidance for using Reporting Forms and Cal e-GGRT to report GHG emissions and other required information for a subpart.



For each applicable subpart from the list below, users must report their facility's total emissions of each applicable GHG directly into Cal e-GGRT and submit required supplemental data and information using Excel-based Reporting Forms which may be downloaded as described below. The Reporting Forms are meant to provide reporters with a simple and straightforward means for reporting required data and information for the subparts listed below and DO NOT ASSIST REPORTERS IN CALCULATING EMISSIONS:

- Subpart A - General Information
- Subpart G - Iron and Steel Production
- Subpart S - Lime Manufacturing (CEMS users only)
- Subpart V - Nitric Acid Production
- Subpart W - Oil and Natural Gas Systems
- Subpart Y - Petroleum Refineries
- Subpart MM - Suppliers of Petroleum Products
- Subpart NN - Suppliers of Natural Gas and Natural Gas Liquids
- SFG Gas Insulated Switchgear
- Electric Power Entities

California Air Resources Board

25

Reporting Emissions Data

Subpart (Click to view subpart help)	Reporting Forms (click to download)	XML Schema (Click to download)	Required Submission Format
A - De Minimis Emissions	De Minimis Emissions.xls	n/a	XLS
A - Forest Product	Forest Product.xls	n/a	XLS
A - Sheet Steel - Soda Ash - Gypsum Production Data	Sheet Steel - Soda Ash - Gypsum Production Data.xls	n/a	XLS
Q - Iron and Steel Production	Subpart Q Production Data.xls	n/a	XLS
S - Lime Production (CEMS only)	Subpart S Product Information for CEMS Reporting.xls	n/a	XLS
V - Nitric Acid Production	Subpart V GHG Reporting Form - Required Data.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Emissions Reporting Tool.xls	carb_subpart_w.xml	XML
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Activity Data Workbook.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Calculation Tool.xls	n/a	n/a
Y - Petroleum Refineries	Subpart Y Additional Production Data and Solomon Energy Efficiency Index.xls	n/a	XLS
MM - Suppliers of Transportation Fuels Calculation and Reporting Tool	Suppliers of Transportation Fuels Calculation and Reporting Tool.xls	carb_subpart_mm.xml	XML
NN - Suppliers of Natural Gas and NGLs	Subpart NN - Interstate NG Pipeline.xls	n/a	XLS
SFG Gas Insulated Switchgear	SFG Gas Insulated Switchgear (GIS) Reporting.xls	n/a	XLS

California Air Resources Board

26

Downloading Calculation Spreadsheets

Equation	Process	GHGs	Help
Equation Y-8 Calculation Spreadsheet.xls	Catalytic Cracking Units or Fluid Coking Units	CO ₂	Y-8 Help
Equation Y-9, Y-10 Calculation Spreadsheet.xls	Catalytic Cracking Units, Fluid Coking Units, Coke Calcining Units, Catalytic Reforming Units	CH ₄ , N ₂ O	Y-9, Y-10 Help
Equation Y-11 Calculation Spreadsheet.xls	Catalytic Reforming Units	CO ₂	Y-11 Help
Equation Y-12 Calculation Spreadsheet.xls	On-Site Sulfur Recovery Plants, Sour Gas Sent Off-Site for Sulfur Recovery	CO ₂	Y-12 Help
Equation Y-13 Calculation Spreadsheet.xls	Coke Calcining Units	CO ₂	Y-13 Help
Equation Y-14, Y-15 Calculation Spreadsheet.xls	Uncontrolled Asphalt Blowing Operations, Asphalt Blowing Operations Controlled by vapor Scrubbing	CO ₂ , CH ₄	Y-14, Y-15 Help
Equation Y-16a, Y-16b, Y-17 Calculation Spreadsheet.xls	Asphalt Blowing Operations Controlled by Thermal Oxidizer or Flare	CO ₂ , CH ₄	Y-16a, Y-16b, Y-17 Help
Equation Y-18 Calculation Spreadsheet.xls	Delayed Coking Units	CH ₄	Y-18 Help
Equation Y-19 Calculation Spreadsheet.xls	Process Vents Not Covered in Paragraphs (a) through (i) of Section 98.253	CO ₂ , CH ₄ , or H ₂ O	Y-19 Help
Equation Y-20 Calculation Spreadsheet.xls	Blowdown Systems	CH ₄	Y-20 Help
Equation Y-21 Calculation Spreadsheet.xls	Equipment Leaks	CH ₄	Y-21 Help
Equation Y-22 Calculation Spreadsheet.xls	Storage Tanks Other Than Those Processing Unstabilized Crude Oil	CH ₄	Y-22 Help
Equation Y-23 Calculation Spreadsheet.xls	Storage Tanks That Process Unstabilized Crude Oil	CH ₄	Y-23 Help
Equation Y-SSM Calculation Spreadsheet.xls	Flares	CO ₂	Y-SSM Help

California Air Resources Board

27

Equation Y-20 Calculation Spreadsheet

Subpart Y - Petroleum Refineries - Calculating Methane Emissions from Blowdown Systems Using Equation Y-20

FOLLOW THE INSTRUCTIONS ON THE NEXT TAB (DATA EXPORT GUIDANCE) FOR INSTRUCTIONS ON HOW TO EXPORT YOUR DATA

Version: Cal e-GGRT RY2011.R.01
Today's date: 3/11/2012

This spreadsheet is protected and contains locked cells to ensure that you do not inadvertently alter any of the included formulas and/or calculations. To remove this protection and alter this spreadsheet, right-click the "worksheet" tab near the bottom of the screen and select "Unprotect Sheet." When prompted for the password, type "GGRT" and click "OK." Please note that making changes to an unprotected sheet could result in incorrect calculations and that you are responsible for the accuracy of the data you report. For additional help, visit the Microsoft Excel Support website (<http://office.microsoft.com/en-us/excel-help>).

Equation Y-20:

$$CH_4 = \left(Q_{BDF} \times EF_{BD} \times \frac{16}{MWC} \times 0.001 \right)$$

Facility Name: _____
 Reporter Name: _____
 Unit Name or Identifier: _____
 Unit Description: _____
 Comments: _____
 Unit Type: Blowdown System

Input Data

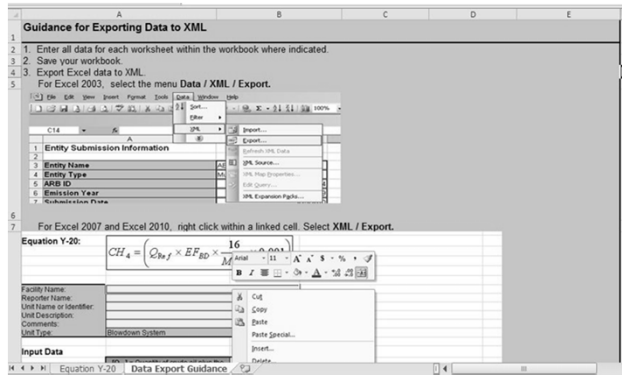
[Q_{BDF}] = Quantity of crude oil plus the quantity of intermediate products recovered from off site that are processed at the facility (MMBbl/year)
 [EF_{BD}] = Methane emission factor for uncontrolled blowdown systems (scf)

The default value for EF_{BD} is 137.000

California Air Resources Board

28

Exporting Equation Calculation Spreadsheets



California Air Resources Board

29

Reporting Emissions and Production Data

- Report emissions for all Facility Level emissions sources
- Report Emissions for all additional facility units
- Report Production Data

California Air Resources Board

30

Reporting Production and EEI Data (additional Production and Solomon EEI data)

California Air Resources Board

31

Reporting Production Data

Product	EIA
Renewable Fuels, TOTAL	202
Ethanol	141
Biomass-based diesel	203
Other renewable diesel	205
Other renewable fuels	207
Oxygenates (Excluding Fuel Ethanol),	444
TOTAL	
ETBE	142
MTBE	144
Other Oxygenates	445
LPG/LPG Ethane	441
LPG/LPG Ethylene	431
LPG/LPG Propane	442
LPG/LPG Propylene	432
LPG/LPG Butane	443
LPG/LPG Butylene	433
LPG/LPG Isobutane	444
LPG/LPG Isopentane	434
LPG/LPG Pentane Plus	220
Unfinished Oil, TOTAL	812
Naphtha and Lighter	820

California Air Resources Board

32

Additional Information for Refiners who also report as Suppliers of Carbon Dioxide

- Does your facility produce Hydrogen?
- Does your facility capture and sell CO₂?
- If you report under Subpart PP (Suppliers of CO₂)- there is a potential for double-counting “transferred CO₂” emissions.
- Use the provision in 95114(g) to subtract emissions that are reported using other calculation methods from your facility total.
- ARB will issue guidance on this topic.

California Air Resources Board

33



Data Validation

California Air Resources Board

34

Reporting: Validation Messages

- Tool provides data validation
- Most messages must be cleared before report submittal
- Clicking on message brings you to where the issue occurred

ARB Test Facility - TEST ONLY - Production Site (2011)
95115, 95112 (Subpart C) - Stationary Fuel Combustion
Subpart Overview - Validation Report

SUBPART C VALIDATION REPORT

This report contains a complete set of validation messages for all data required by this Subpart. For additional information about Validation Reports, please use the Cal e-GGRT Help (link) provided.

Print-friendly version

FACILITY-LEVEL VALIDATION MESSAGES

Validation Type ¹	BP ²	Unit Name ³	Message ⁴
No facility level validation messages.			

CONFIGURATION-LEVEL VALIDATION MESSAGES

Validation Type ¹	BP ²	Unit Name ³	Message ⁴
Data Completeness	C125	PG Single Unit	Annual carbon dioxide emissions from combustion of all biomass fuels combined (if any of the units burn fossil AND biomass). This data element is required.
Data Completeness	C128	PG Single Unit	Annual carbon dioxide emissions from sorbent. This data element is required.

FUEL-LEVEL VALIDATION MESSAGES

Validation Type ¹	BP ²	Unit Name ³	First Name	Message ⁴
Data Completeness	C145	PG Single Unit	Natural Gas (Weighted U.S. Average)	Annual carbon dioxide emissions from combustion of the specified fuel. This data element is required.

Subpart Overview

¹ Validation Types: Cal e-GGRT generates a variety of validation types, defined below:

- Data Completeness: data required for reporting is missing or incomplete.
- Data Quality: data is outside of the range of expected values. The value you have provided is outside the ARB estimated range for this data element. Please double check this value and revise, if necessary. If you believe it to be correct, please submit the value as is.
- Screen Error: a data value or combination of data values prevents Cal e-GGRT from continuing to the next page. Typically, this will not appear on the Validation Report, but instead will be displayed on the data entry page at the time the error was created.

California Air Resources Board

35

Key Reporting Dates

- See **Key Dates** web page for specific dates applicable to reporting year
- <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>
- Actual Reporting Dates may differ from dates specified in the regulation if the specified dates fall on a Saturday, Sunday, or Holiday
- **Key Dates** page is updated annually with required submission dates

California Air Resources Board

36

For More Information

- GHG Reporting Website
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>
- See website for:
 - Regulation reporting guidance and fact sheets
 - Reporting tool information
 - “Clean” copy of the regulation (no underline/strikeout)
 - Sector specialist contacts
- Email reporting tool questions to: ghgreport@arb.ca.gov

GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	<u>Dave Edwards</u> , Manager 916.323.4887
Reporting Requirements, Stationary Combustion, Other Sectors (cement, glass, pulp and paper, etc.)	<u>Patrick Gaffney</u> 916.322.7303
Reporting Tool Registration and General Questions	<u>Karen Lutter</u> 916.322.8620
Electricity Generation and Cogeneration Facilities	<u>Anny Huang</u> 916.323.8475
Electricity Retail Providers and Electricity Marketers	<u>Wade McCartney</u> 916.327.0822
Fuel and CO2 Suppliers - Transportation Fuels, Natural Gas, LPG, CO2	<u>Byard Mosher</u> 916.323.1185
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production	<u>Byard Mosher</u> 916.323.1185
Greenhouse Gas Report Verification	<u>Renee Lawver</u> , Manager 916.322.7062
Chief – Greenhouse Gas Emission Inventory Branch	<u>Richard Bode</u> , Chief 916.323-8413